

## COMMENTS ON NPRM: EB Docket 06-119

Thank you for the opportunity to address NPRM, Docket 06-119.

### Nature of the Problem

I am a retired police captain from the Oakland, California Police Department. My last assignment was commanding the Communications Division, comprised of the 911 Public Safety Answering Point and the dispatch center for the police department. During my career I was involved in numerous emergency response and emergency planning activities. I currently am the emergency planning consultant for the City of Langley, WA. I am also a licensed amateur radio operator.

I am very familiar with a number of types of emergency communications systems, having used most of them at one time or another. The City of Oakland uses a M/A Com 800MHz trunked radio system. This system has provided many benefits in terms of flexibility, availability of multiple talk groups and the ability to "patch" talk groups. However, the benefits of an 800MHz trunked system come with distinct costs. Of course money is one. But the other costs come in terms of reliability. While the system was able to complete most connections in under 250 msec, it also had occasional failures. These failures are common to all trunked radio systems. They can occur in many forms: software, computer hardware, radio hardware and networking failure, microwave link misalignment, etc. During a major natural or human-caused disaster, several of these are likely to occur. A large earthquake can cause tower failure (resulting in both radio hardware failure and microwave link misalignment), networking problems due to severed lines, damage to dispatch radio control consoles, etc. At the same time, the need for emergency communications increases several fold. Total reliance on a system with so many vulnerabilities is not wise and is not good planning.

Cellular telephone systems are extremely useful for daily, routine communications. But they have proven themselves to be poor choices in large-scale disasters due to infrastructure vulnerabilities and traffic overloads. Cellular providers will not routinely give priority to public safety agency use in anticipation of emergency needs. While those providers may provide priority use some hours into a disaster, it is the first hours that are most critical. Cellular phones are a very poor choice for "backup" communications.

Satellite phones are an excellent choice for disaster use in that they are not affected by local infrastructure failures. The down-side of satellite telephones is the cost and relative scarcity of equipment. Few agencies can have more than one or two satellite phones available for their needs. While they may be good for high level coordination, they provide little help for field responders or local coordination.

Amateur radio is an extremely cost effective means of providing backup communications. Local agencies receive these services at no cost other than any infrastructure that they may implement to improve amateur radio. Usually, the infrastructure is provided totally by the responding amateur radio operators. The weakness of amateur radio support for disaster support is that many agencies never develop relationships with their local amateur radio groups in advance. This tends to result in some distrust, misconceptions about what the amateurs can and cannot do, misconceptions about what is expected from the amateurs and a steep “learning curve” at the most critical time of need.

### Proposed Solutions

While I certainly do not advocate that public safety agencies using trunked systems return to total reliance on VHF and UHF conventional radio systems, I do believe that comprehensive disaster planning requires a diversity of communications methods that function independently. The best of these plans includes, but is not limited to, 800MHz trunked systems, VHF and UHF conventional public safety radios, Voice over IP, email, satellite phones, cellular phone systems and amateur radio.

Most agencies cannot economically have all of this. What the FCC and the Department of Homeland Security should be providing is funding and regulatory help to see that those agencies get access to reliable backup equipment and services. They should not dictate what a specific agency needs, but rather a package of possible selections that emphasizes a diversity of communications.

I would advocate the following specific measures:

- Funding for relatively inexpensive but frequency agile VHF and UHF radios that can be configured to meet the needs of the disaster (e.g. programming for a wild-fire scenario vs. one of terrorism).
- Creating a pool of VHF and UHF frequencies that can be assigned at the state or regional level “on the fly” to meet the needs of a particular emergency.
- Funding for more satellite phones and for keeping the service on those phones active. If an agency must assume a large, on-going cost just to keep its satellite phones operable, budgetary choices will certainly eliminate this funding for an infrequent (albeit catastrophic) event vs. normal budgetary needs. These phones need to filter down to counties with the understanding that some specified number are for the use of jurisdictions within those counties.
- Focusing amateur radio regulations on providing maximum capacity and flexibility for emergency response and recovery support. For example, ensuring adequate spectrum to provide HF emergency communications,

encouraging the development and use of more efficient, digital modes of communications, etc.

- The FCC and DHS should focus on creating a strong and well-trained amateur radio corps with the ability to adequately serve the needs of agencies in disasters. Both agencies should undertake a public relations campaign emphasizing the role that trained radio amateurs provide during times of disaster and calling on the public to participate. The training suggested by DHS should not be totally dictated from above, but should consist of a selection of courses that can more specifically meet the needs of the agencies served.
- The FCC is correct in seeking flexibility in rules and regulations during a disaster. Relaxation of rules regarding band privileges, operation of equipment not normally covered by the amateur regulations, etc. can be useful when necessary to bridge a gap in communications.
- The federal government should provide more funding for local governments to acquire amateur radio equipment and financial incentives for them to link with local RACES and ARES groups in advance of disasters. Forming the relationships in advance of an emergency is essential to the efficient provision of service when it is most needed.
- Training for government agencies at all levels in the importance of avoiding "single-thread" communications and how to rectify this problem through training, equipment and relationships with assisting agencies (amateur radio, REACT, etc.).

The overarching consideration in providing reliable disaster communications has to be implementing multiple, independent communications resources and providing trained operators.

Respectfully submitted.

Alan L. Whitman  
P.O. Box 174  
Langley, WA 98260  
K6ZY